

Application No.: 10/072,599
Response to April 20, 2006 Final Office Action
Page 2 of 9

Docket No.: CB-11

AMENDMENTS

The claims and status in the Application are as follows:

CLAIMS:

1. **(Currently Amended)** An electrosurgical probe comprising:
a shaft having a distal end portion;
a return electrode formed into a coil having a plurality of turns and defining a lumen therethrough, said return electrode supported by said shaft distal end portion and where in a gap exists between a plurality of the turns of the return electrode coil;
an active electrode disposed through said lumen and projecting distally beyond said coil, said active electrode supported by said shaft distal end portion;
a spacer disposed around said active electrode and supported by said shaft distal end portion, whereby said active electrode is insulated from said return electrode; and
an electrically conductive fluid delivery element adapted to deliver an electrically conductive fluid in the vicinity of said active electrode and the gap between turns of the return electrode coil.
2. **(Original)** The probe of claim 1, wherein the return electrode coil comprises from about 2 to 10 turns.
3. **(Previously Presented)** The probe of claim 1, wherein the return electrode coil comprises about 6 turns.
4. **(Previously Presented)** The probe of claim 1, wherein the return electrode coil comprises a plurality of turns having a pitch in the range of from about 0.010 to 0.045 inches.
5. **(Previously Presented)** The probe of claim 1, wherein the return electrode coil has an external diameter in the range of from about 0.070 to about 0.200 inches.
6. **(Previously Presented)** The probe of claim 1, wherein the longitudinal axis of the return electrode coil is oriented substantially parallel to the longitudinal axis of the return electrode.

Application No.: 10/072,599
Response to April 20, 2006 Final Office Action
Page 3 of 9

Docket No.: CB-11

7. (Currently Amended) ~~The probe of claim 1,~~ An electrosurgical probe comprising:
a shaft having a distal end portion;
a return electrode formed into a coil and defining a lumen therethrough, said return electrode supported by said shaft distal end portion;
an active electrode disposed through said lumen and projecting distally beyond said coil, said active electrode supported by said shaft distal end portion;
a spacer disposed around said active electrode and supported by said shaft distal end portion, whereby said active electrode is insulated from said return electrode;
an electrically conductive fluid delivery element adapted to deliver an electrically conductive fluid in the vicinity of said active electrode; and
wherein the return electrode coil is wound from a length of wire having a distal terminus, and the wire distal terminus is arranged within the return electrode coil lumen.
8. (Previously Amended) The probe of claim 1, wherein the return electrode coil is wound in a proximal direction towards said shaft distal end, wherein the first turn of the return electrode coil is located at the distal end of the return electrode coil.
9. (Previously Presented) The probe of claim 1, wherein the return electrode further comprises a return electrode filament extending proximally from the return electrode coil and having a diameter in the range of from about 0.008 to 0.030 inches.
10. (Currently Amended) The probe of claim 1[[2]], wherein a gap exists between each of said turn of the return electrode coil.
11. (Previously Presented) The probe of claim 10, wherein the gap is adapted for retaining an electrically conductive liquid against a surface of the return electrode.
12. (Previously Cancelled)
13. (Previously Withdrawn)

Application No.: 10/072,599
Response to April 20, 2006 Final Office Action
Page 4 of 9

Docket No.: CB-11

14. (Previously Presented) The probe of claim 1, wherein the active electrode filament comprises a substantially circular metal wire having a diameter in the range of from about 0.006 to 0.020 inches.

15. - 22. (Previously Withdrawn)

23. - 24. (Previously Cancelled)

25. (Previously Presented) The probe of claim 1, wherein the spacer comprises a material selected from the group consisting of a ceramic, a glass, a silicone rubber and alumina.

26. (Previously Cancelled)

27. (Previously Presented) The probe of claim 1, further comprising: a handle, the handle housing a connection block, and wherein the shaft includes a proximal end, the handle affixed to the shaft proximal end.

28. - 36. (Previously Withdrawn)

37. (Previously Presented) The probe of claim 1, wherein the active electrode and the return electrode each comprises a material selected from the group consisting of molybdenum, platinum, tungsten, palladium, iridium, titanium, and their alloys.

38. - 82. (Previously Withdrawn)

83. (Previously Presented) The probe of claim 1, wherein the return electrode coil comprises a plurality of turns, and wherein the turn at the distal end of said coil is flattened substantially perpendicular to the longitudinal axis of the coil.

84. (Previously Presented) The probe of claim 1, wherein plasma is generated at said active electrode upon application of a high frequency power supply between the active and return electrodes.

Applicant No.: 10/072,599
Response to April 20, 2006 Final Office Action
Page 5 of 9

Docket No.: CB-11

85. (Previously Presented) The probe of claim 1, wherein the return electrode coil has an external diameter in the range of from about 0.012 to about 0.025 inches.

86. (Previously Presented) The probe of claim 1, wherein the electrically conductive fluid is selected from the group consisting of isotonic saline, a gel, a gas and an electrically conductive fluid having a conductivity greater than isotonic saline.

87. (Previously Presented) The probe of claim 1, wherein the distal end portion comprises a suction lumen for aspirating excess fluid from a target site.

88. (New) The probe of claim 1 wherein the gap is configured to promote retention of the electrically conductive fluid via surface tension.